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ABSTRACT

Compartiendo Culturas/Sharing Cultures, a Title VII Two-Way Developmental Bilingual Education Program at the Gary L. Herod Elementary School in the Houston Independent School District (Texas) was designed to end the isolation typically experienced by language minority students in traditional bilingual education and to provide language majority students the opportunity to acquire proficiency in a second language. An Enhancement Program was developed to extend the program to prekindergarten students. The enhancement served a class of 22 students identified as limited English proficient by providing a family-centered community-based integrated program. Goals were to improve the language development, preliteracy development, and affective development of the students, to empower the parents to see themselves as the primary educators of their children, and to provide a comprehensive staff development component that focused on early childhood bilingual education. Evaluation of the program focused on the language and affective development of the students and evaluation of the staff development and parent participation components. Results from pretests and posttests with a developmental checklist and a language survey indicated that the program succeeded in preparing these language minority students for kindergarten. Parent involvement and staff development components were also rated successful. (Contains 2 figures, 6 tables, and 27 references.) (SLD)

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RESEARCH

Report on Educational Grants

An Evaluation Report from the Department of Research and Evaluation

Title VII Enhancement Project for *Compartiendo Culturas / Sharing Cultures* 1995-96

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Houston Independent School District

EXECUTIVE SUMMARY

Title VII Enhancement Project for *Compartiendo Culturas / Sharing Cultures*

Program Description

Herod Elementary School in the Houston Independent School District (HISD) implemented a highly focused Pre-Kindergarten component to expand its existing Title VII Two-Way Developmental Bilingual Education Program, *Compartiendo Culturas/Sharing Cultures*, to serve early education students. The early childhood education intervention addressed the special needs of four-year-old language minority students and their parents by providing a family centered community-based integrated program. Goals of the enhancement project were:

- to reduce the gap between the LEP and FEP students entering Herod Elementary School's Two-way Developmental Bilingual Education Kindergarten classroom.
- to improve the language development, pre-literacy development, and affective development of the Pre-Kindergarten students.
- to empower the parents to view themselves as the primary educators of their children.
- to provide a comprehensive staff development component that focused on early childhood bilingual education.

To achieve these goals Herod Elementary School implemented curriculum and program changes at the Pre-Kindergarten level, and launched a family involvement and education component to support the students in the Pre-Kindergarten program.

To evaluate the effectiveness of the program, the following research questions were addressed:

1. What were the demographic characteristics of the program participants?
2. Was the gap between Limited English Proficient (LEP) and Fluent English Proficient (FEP) students reduced as related to their readiness for Kindergarten after participation in the Pre-Kindergarten program?
3. Was there at least one year of growth in the

students' primary language development skills in Spanish during the 1995-96 school year?

4. Was there at least one year of growth in the students' pre-literacy development skills in Spanish during the 1995-96 school year?
5. Was there substantial growth in the students' affective development levels during the 1995-96 school year?
6. How were parents involved in the Enhancement Program, and what were their perceptions of the program?
7. What staff development activities were provided for program staff, and how did the training help the staff achieve their instructional goals?
8. What were the recommendations of program staff and parents for improving the quality of the program implementation?

Findings

- The program evaluation focused on twelve, four- and five-year-old, Spanish-speaking students who participated in the Pre-Kindergarten dual-language program at Herod Elementary School. Three male and nine female students participated in the program.
- The mean NCE score on the pretest of the Broad Spanish Abilities measure was 27; the mean NCE score on the posttest was 37. This produced a mean NCE change score of 10. A t-test supported the conclusion that student achievement on Broad Spanish Abilities was statistically significant at the 0.01 level of significance.
- An examination of individual scores showed that eight of the twelve students scored at or above grade level in Oral Language Ability with NCE scores ranging from a high of 87 to a low of 50. The increase in student achievement on the Oral Language Abilities subtest was statistically significant at the 0.01 level of significance.

- Results from the Reading/Writing Abilities subtest indicated progress, but the evidence was not statistically significant on this subtest. The mean NCE pretest score was 25; the mean NCE posttest score was 29; and the NCE Change Score was 4.
- All of the students demonstrated that they enjoyed sharing their experiences with books, and that they were secure with their behavior. Eleven of the twelve demonstrated that they were secure with their ability to write and draw, and that they enjoyed writing and drawing. One of the students showed that he was beginning to enjoy writing and drawing.
- Impressive results were recorded on the Fall 1996 Kindergarten Developmental Survey and Language Assessment Survey (LAS). Not only was the readiness for Kindergarten gap reduced between LEP and FEP students, but the LEP students outscored their fluent English-speaking classmates with a total mean score of 102.6 to 96.4 on the Kindergarten Developmental Survey. In addition, the Language Assessment Survey (LAS) Level mean score for both groups was the same at 3.8.
- Ten of eleven parents indicated that they attended HIPPY training at Herod Elementary School. Nine parents indicated that they helped their child with lessons at home every day. All of the parents were trained to use Spanish language materials, and all used Spanish language materials to help their children at home. Results of the survey indicated that parents were pleased with the teaching methods used at school, and they felt that their children benefited from the program.

All of the parents expressed positive attitudes about the dual-language program and their HIPPY training.

- A number of staff development activities were provided for dual-language program staff through the following institutions: The University of St. Thomas, the Second Annual Dual-Language Conference in Austin, Texas, Harris County Department of Education, Region IV Education Service Center, Houston Community College System, and Houston Baptist University. Survey responses by teachers and staff indicated positive effects for the staff development component of the project.

Recommendations

The following program additions or changes were recommended to improve program effectiveness

- Provide additional staff development for non-program teachers. Topics may include: What is dual language? What does it mean? Benefits of dual language. Comparison with other methods of bilingual education.
- Start the program at the beginning of the school year in 1996-97. Funding approval dates delayed the start of the program in 1995-96.
- Provide additional district support and promote districtwide implementation for this model dual-language Pre-Kindergarten program.
- Provide districtwide support for schools to implement the HIPPY parental involvement program. Pre-school students need more from their parents, and this program teaches parents how to help their pre-school children.

TITLE VII ENHANCEMENT PROJECT FOR COMPARTIENDO CULTURAS / SHARING CULTURES

Herod Elementary School in the Houston Independent School District (HISD) implemented a highly focused Pre-Kindergarten component to expand its existing Title VII Two-Way Developmental Bilingual Education Program, Compartiendo Culturas/ Sharing Cultures, to serve early education students. The early childhood education intervention addressed the special needs of four-year-old language minority students and their parents by providing a family centered community-based integrated program. Goals of the enhancement project were: to improve the language development, pre-literacy development, and affective development of the Pre-Kindergarten students; to empower the parents to view themselves as the primary educators of their children; and to provide a comprehensive staff development component that focused on early childhood bilingual education.

To achieve these goals Herod Elementary School implemented curriculum and program changes at the Pre-Kindergarten level, and launched a family involvement and education component to support the students in the Pre-Kindergarten program.

Evaluation of the program focused on the language development and affective development of the pre-school students in preparing them for Kindergarten, as well as an evaluation of the staff development and parent involvement components using interview and survey techniques.

Results from pre- and post-tests using a developmental checklist and a language survey indicated that the program succeeded in preparing the Pre-Kindergarten language-minority students for Kindergarten. The parent involvement and the staff development components were also rated successful.

Introduction

District, School, and Student Characteristics

The Houston Independent School District (HISD) was established in 1876, and is currently the largest public school district in Texas, as well as the seventh largest in the United States. HISD students represent a large, multi-cultural and economically diverse metropolitan community. In the early 1980s, HISD's Hispanic population was 27% of total enrollment, with 19% of those students Limited English Proficient (LEP). Ten years later, Hispanics comprised 51% of the HISD student population, with 33% LEP. The Hispanic population in Houston continued to increase with many immigrants, refugees, and others coming to Houston to escape economic and political difficulties in their native countries.

Gary L. Herod Elementary School is located in southwest Houston and is recognized for its ethnic diversity and support of multiculturalism. HISD District and School Profiles 1995-96 reflects the diversity at Herod by listing an enrollment of 760 students, with 47% White, 22% African American, 22% Hispanic, and 9% Asian.

The *Compartiendo Culturas/ Sharing Cultures* Enhancement Program served a class of twenty-two Pre-Kindergarten children who were identified as LEP. Most of the children were younger siblings of the students participating in Herod's *Compartiendo Culturas/ Sharing Cultures* program, and they were scheduled to enter that program when they reached the appropriate school age.

Program Description

Herod Elementary School implemented a highly focused Pre-Kindergarten component to expand its existing Title VII Two-Way Developmental Bilingual Education Program—*Compartiendo Culturas/Sharing Cultures*—to serve early education students. The early childhood intervention addressed the special needs of four-year-old language minority students and their parents by providing a family-centered, community-based integrated program.

During implementation of the school's Two-Way Developmental Bilingual Education Program, the *Compartiendo Culturas* staff observed LEP students with low levels of native language proficiency and poor academic self confidence. In particular, there was a large gap in the pre-literacy levels of the LEP and Fluent English Proficient (FEP) children when they first entered the program's Kindergarten class. Additionally, the low level of academic self-confidence exhibited by the LEP children affected their entire school experience. This disparity was attributed to differences in the early life experiences of the LEP students. Therefore, the Enhancement Project provided a highly focused Pre-Kindergarten component to ensure a rich early learning environment for the LEP children.

The early childhood education intervention addressed the special needs of four-year-old language minority students and their parents by providing a family centered community-based integrated program. Goals of the enhancement project were:

- to reduce the gap between the LEP and FEP students entering Herod Elementary School's Two-way Developmental Bilingual Education Kindergarten classroom.
- to improve the language development, pre-literacy development, and affective development of the Pre-K Kindergarten students.
- to empower the parents to view themselves as the primary educators of their children.
- to provide a comprehensive staff development component that focused on early childhood bilingual education.

Project Implementation

To achieve these objectives Herod Elementary School implemented curriculum and program changes at the Pre-Kindergarten level, and launched a family involvement and education component to support the students in the Pre-Kindergarten program.

The curriculum and program changes included a center-based, developmentally appropriate half-day bilingual Pre-Kindergarten class. Bilingual teachers and instructional aides at the Pre-Kindergarten and Kindergarten levels participated in planning, training, and curriculum development activities to achieve project goals. The enhancement program included one certified, bilingual education teacher and two instructional aides, one Spanish-speaking aide and one English-speaking aide. They provided instruction for twenty-two, four-year-old children.

That Pre-Kindergarten class emphasized the language and literacy development of the Spanish speakers in their native language. That approach was consistent with the goals and philosophy of *Compartiendo Culturas*. The focus on the Spanish speaking children's native language was designed to ensure an early start towards additive bilingualism. Thirty minutes of ESL through content area center based activities were included for the development of English language skills.

A community-based, bilingual parent trainer assisted with the family involvement and education component. The aide worked within the homes of the participants to develop the instructional skills of the parents.

The program used the Home Instruction Program for Pre-school Youngsters (HIPPY) which was developed by the National Council of Jewish Women Research Institute for Innovation in Education at the Hebrew University of Jerusalem, Israel in 1969. The HIPPY program provided a comprehensive home based intervention that taught the family "how to teach" their pre-school children. The program was designed for parents with limited educational experience, even non-literate individuals. The HIPPY program, through specific learning activities and materials, allowed families to provide meaningful education enrichment for the pre-school children. The HIPPY program used the para-professional instructional aide to establish a strong school and home bond. The HIPPY parent trainer visited each family participating in the *Compartiendo Culturas/Sharing Cultures* Enhancement Program on a weekly basis.

The *Compartiendo Culturas/Sharing Cultures* Enhancement Program offered a dual learning approach. The program offered a comprehensive and coordinated school/home based language development Pre-Kindergarten educational experience. The "whole" child was involved in this supportive, emerging literacy and language development program. The

most influential people in the lives of young children, their families and teachers, each had an equally active role in the process.

The Pre-Kindergarten classroom employed an active center based learning approach. This facilitated both individualized and cooperative grouping. The young students were allowed to choose their learning approaches from a variety of Early Childhood Education learning centers including: block/construction, library, art, dramatic play, listening, scientific exploration, gross motor, and manipulatives. The centers focused on language arts, mathematics, social studies, and science. Students were encouraged to use a creative writing center and to use a daily personal journal to develop their emerging literacy skills. A problem solving center addressed their higher level thinking skills.

Qualifications of Staff

The project coordinator was a fluent reader, speaker, and writer in both Spanish and English. She received a B.S. from Texas A&M University and an M.Ed. in Bilingual Education from Houston Baptist University. She had previous experience managing successful Title VII Bilingual Education programs. The program teacher was certified in both Elementary Education and Bilingual Education, and fluent in both Spanish and English.

The instructional aide/bilingual clerk met certification requirements as an HISD aide. She assisted in the planning process, managed instructional materials, and worked well with the children. The Parent Trainer was enthusiastic about learning to train other parents, took the initiative to visit parents, deliver materials, and help them teach their children.

Budget and Funding Source

Funding for this project was provided by a Title VII Bilingual Education grant. The project funded 100% of the salaries for the parent trainer and the instructional aide/bilingual clerk. Title VII provided contracted services for training and project evaluation, supplies and materials for instruction and project administration, operating expenses, and equipment.

Purpose of the Evaluation Report

School districts receiving Title VII funds for Bilingual Education are required to provide an end-of-year evaluation. This report addressed the four goals of the Enhancement Project: 1) to reduce the gap between the LEP and FEP students entering Herod

Elementary School's Two-way Developmental Bilingual Education Kindergarten classroom, 2) to improve the language development, pre-literacy development, and affective development of the Pre-Kindergarten students, 3) to empower the parents to view themselves as the primary educators of their children, and 4) to provide a comprehensive staff development component that focused on early childhood bilingual education.

The following research questions were addressed:

1. What were the demographic characteristics of the program participants?
2. Was the gap between Limited English Proficient (LEP) and Fluent English Proficient (FEP) students reduced as related to their readiness for Kindergarten after participation in the Pre-Kindergarten program?
3. Was there at least one year of growth in the students' primary language development skills in Spanish during the 1995-96 school year?
4. Was there at least one year of growth in the students' pre-literacy development skills in Spanish during the 1995-96 school year?
5. Was there substantial growth in the students' affective development levels during the 1995-96 school year?
6. How were parents involved in the Enhancement Program, and what were their perceptions of the program?
7. What staff development activities were provided for program staff, and how did the training help the staff achieve their instructional goals?
8. What were the recommendations of program staff and parents for improving the quality of the program implementation?

Review of Literature

A review of the literature described Bilingual Education programs throughout the country, and indicated that students with limited English proficiency typically received instruction in language arts (reading, writing, listening and speaking), plus science, mathematics, and social studies in both the native language and in English. After demonstrating proficiency in English, they entered the English instructional program. The debate continues regarding the benefits of "early" and "late" transition from Spanish to English instruction.

Cummins (1984) and Krashen and Biber (1988) supported the theoretical basis for Bilingual Educa-

tion. Cummins found that a strong native language foundation can actually make the learning of English easier and faster. In addition, Hakuta and Gould (1987) reviewed research in bilingualism which confirmed that a strong primary language foundation enabled a student to make a more effective transition from primary language instruction to English.

A number of research studies focused on the length of time needed to be academically successful in a second language and the variables that influenced the academic achievement of language minority students (Collier, 1987, 1988, 1989, 1992; Collier & Thomas, 1988, 1989, 1991, 1992; Thomas, 1992, 1993, 1994). In U.S. schools where all instruction is in the second language (English), foreign students of English with no schooling in their first language generally take 7-10 or more years to reach age and grade-level norms of their English-speaking classmates. Students who have had 2-3 years of first language schooling in their home country before coming to the U.S. need at least 5-7 years to reach typical native-speaker performance. This pattern exists across many student groups, regardless of the particular home language that students speak, country of origin, socioeconomic status, and other student background variables. Research has shown that to achieve academic success, the most significant student background variable is the amount of formal schooling students received in their native language (Cummins, 1981).

Non-native speakers instructed in a second language for part or all of the school day typically do reasonably well in the early years of schooling (Kindergarten through second or third grade). However, from fourth grade through middle school and high school, when the academic and cognitive components of the curriculum become increasingly more difficult, students with little or no academic and cognitive development in their first language typically fall farther behind as they move into the upper grades. Many studies have found that cognitive and academic development in the first language has an extremely important and positive effect on second language schooling (Bialystok, 1991; Collier, 1989, 1992; Garcia, 1994; Genesee, 1987, 1994; Thomas & Collier, 1995).

The elementary school program that demonstrated the most success for the long-term academic success of language minority students as measured by standardized tests was two-way developmental bilingual education. Students in a two-way bilingual education program maintained grade level skills in

their first language at least through the sixth grade, and reached the 50th percentile (grade level or normal curve equivalency) in their second language after 4-5 years of schooling in both languages. Program characteristics included: 1) integrated schooling, with English speakers and language minority students learning from each other, 2) the perception of students, parents and staff that it was a "gifted and talented" program, 3) equal status of the two languages, 4) increased parental involvement of both English-speaking and language minority students, and closer home-school cooperation, 5) continuous staff development in such areas as language acquisition, cooperative learning, interactive and discovery learning.

Research also indicated that students in well-taught bilingual classes that continued through at least sixth grade, with cognitive and academic development in the first language, reached the 50th percentile and maintained their academic performance at secondary level in academic classes taught in English. Students achieved significantly better in programs that taught language through cognitively complex academic content in math, science, social studies, and literature, emphasizing problem-solving, discovery learning, and a variety of highly interactive classroom activities. The least successful program model for long-term academic success was the ESL pullout program in early grades. Although there appears to be little difference in programs during grades, K-3, there were significant differences as students continued in the mainstream at the secondary level.

Current research (Thomas & Collier, 1995) found that classes in schools that are highly interactive, emphasizing student problem-solving and discovery learning through thematic experiences across the curriculum are likely to provide the kind of social setting for natural language acquisition to take place, simultaneously with academic and cognitive development. Collaborative interaction, where meaning is discussed with classmates, is crucial to the language acquisition process, both for oral and written language development (Ellis, 1985; Enright & McCloskey, 1988; Freeman & Freeman, 1992; Goodman & Wilde, 1992; Swain, 1985; Wong Fillmore, 1991).

Demographic statistics confirmed that more students immigrated to the United States from Asian, Middle-Eastern and other non-Spanish-speaking countries than they did just twenty years ago (Resource Center on Educational Equity, 1993). Current

research in the field of teaching English as a Second Language highlighted the linguistic and ethnic diversity of LEP students in contemporary classrooms that required updated ESL methodologies that were different than those used in the past. Although Spanish remained the predominant first-language, ESL teachers employed innovative strategies that included using drama (Ressler, 1990), speech (Murphy, 1992) and writing (Perrotta, 1994) to facilitate development of a second language. Using cooperative learning (Calderon, 1989), and employing technology to support instruction (Wong, 1989; Jex, 1988) also proved to be effective with second-language instruction.

Methodology

Study Design

Evaluation of the *Compartiendo Culturas* Enhancement Project included process and summative evaluation. The process evaluation documented the program's implementation to determine effectiveness and necessary refinements needed to achieve program goals and objectives. The process evaluation assessed program strengths and weaknesses. The summative evaluation measured the impact of the program on the language development of the participants. The study was designed to provide relevant data for Herod Elementary School to assess the effectiveness of the model Pre-Kindergarten program in preparing LEP students to enter Kindergarten.

A pre/post evaluation design was used to determine the effectiveness of the project using the norm-referenced Woodcock-Muñoz, Language Survey, Spanish Form (LS-S) from Riverside Publishing Company. That instrument is recognized for its reliability and validity in providing data relative to student language development in terms of academic progress, grade equivalence and age equivalence.

The pre-test was conducted in October 1995 as the program was initiated. The post-test was conducted the following year in September 1996. A norm-referenced test enabled comparison of the project participants to students in the general population. An analysis of *t*-tests for differences was used to evaluate students' native language and pre-literacy development.

The evaluation employed multiple measures including a Kindergarten Developmental Checklist developed by HISD, an Emergent Reader Inventory, published by Creative Teaching Press, the standardized Language Assessment Survey (LAS), and stu-

dent portfolios. The Emergent Reader Inventory was used to assess the affective development of participants and their reading readiness. The Kindergarten Developmental Checklist was used by the Kindergarten teacher in fall 1996 to assess the readiness for Kindergarten of the students who participated in the Pre-Kindergarten dual-language model program during the previous year. The LAS was used to determine the level of language proficiency of the student in English or Spanish. Level 1 indicates limited proficiency; level 5 indicates language proficiency.

In addition, training, parent involvement, and staff development were evaluated using surveys, interviews, and other instruments. Parents and students as well as teachers and administrators contributed to the evaluation of this project.

Data Analysis

The Woodcock-Muñoz Language Survey produced Normal Curve Equivalent (NCE) scores for each student on three subtests: Broad Spanish Abilities, Oral Language Development, and Reading/Writing Ability.

Normal Curve Equivalent (NCE) scores on these three subtests were used to determine student growth on these measures. In general, an NCE score of 50 represents grade level performance. The NCE Change Score is derived by determining the difference from the pretest to the posttest. A change score of zero from one year to the next indicates normal progress for one year. A positive change score indicates an increase from the pretest to the posttest and indicates additional progress. A negative change score indicates a decrease from the pretest to the posttest, and indicates that progress was less than expected from one year to the next. Figure 1 displays the NCE scores for these three measures on the Woodcock-Muñoz Language Survey—Spanish.

The NCE scores were also analyzed using Microsoft Excel data analysis software to conduct a *t*-test. The purpose of the *t*-test was to determine whether the increase in achievement was statistically significant, or due to chance, or standard error.

An analysis of the scores produced a mean for the scores, a *t*-test statistic (*t*-statistic), and a probability (*p*). In order to be considered statistically significant, the *t*-statistic had to exceed a critical score (*t*-critical), with a probability of 0.05 or less ($p \leq .05$).

If the *t*-statistic exceeds the *t*-critical score, and the probability is below 0.05, the *t*-test supports the

conclusion that the increase in student achievement was statistically significant at the .05 level of significance. Therefore, it may be stated with some confidence that the increase in students achievement was not due to standard error, but that it may be attributed to the effectiveness of the dual-language program.

Conversely, if the *t*-statistic is less than the *t*-critical score, and the probability is above .05, then no conclusions may be drawn concerning program effectiveness on that particular measure. In that case, the difference in the scores may be attributed to chance or standard error.

The HISD Kindergarten Developmental Checklist included four developmental measures: communication, problem-solving, social-emotional development, and physical development. Each measure produced a score, and the sum of the four measures produced a total score.

The Language Assessment Survey (LAS) provides a measure for a student's language proficiency. Level 1 indicates limited proficiency and Level 5 indicates proficiency in a particular language. Usually, this test is administered in English to determine the level of a student's proficiency in English.

Finally, observations of teachers and administrators, parent training and parental involvement were assessed by examining frequency distributions reflected in the data collected on survey instruments and evaluation instruments.

Findings

What were the demographic characteristics of the program participants?

The program evaluation focused on twelve, four- and five-year-old, Spanish-speaking students who participated in the Pre-Kindergarten Dual-Language program at Herod Elementary School. Three male and nine female students participated in the program. These students were tested in fall 1995 and in spring 1996, at the beginning and at the end of the program. The students were also tested in fall 1996 at the beginning of their Kindergarten year to determine their readiness for Kindergarten.

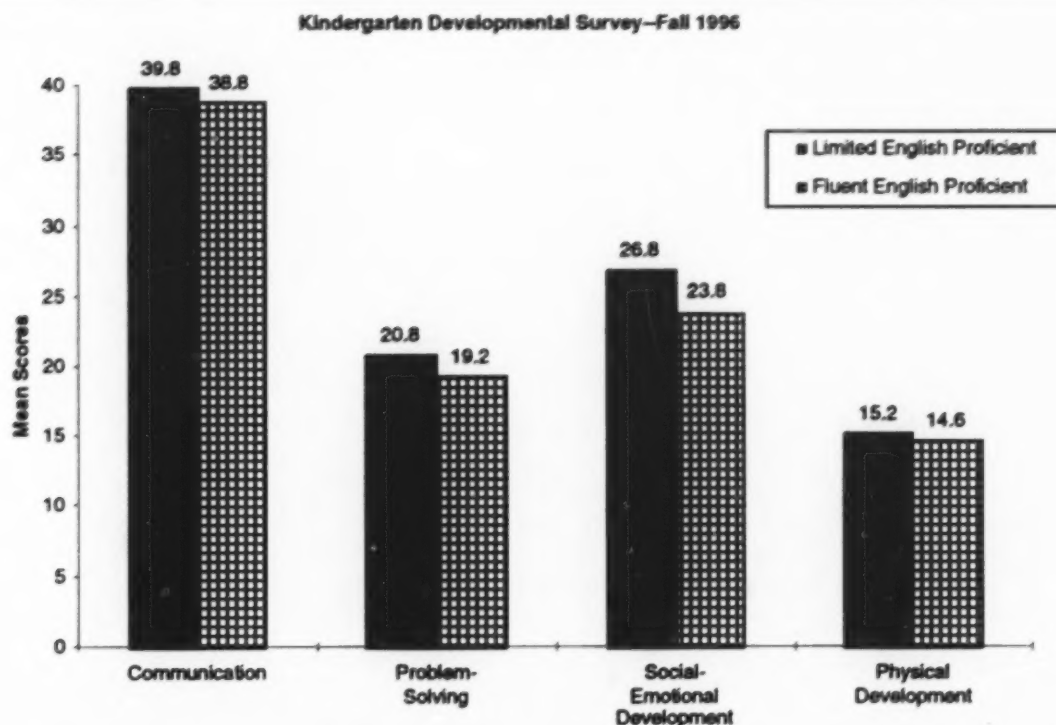


Figure 1: Results of the fall 1996 Kindergarten Developmental Survey for program participants.

Was the gap between LEP and FEP students reduced as related to readiness for Kindergarten after participation in the Pre-Kindergarten program?

Most impressive results were recorded on the Fall 1996 Kindergarten Developmental Survey. Not only was the readiness for Kindergarten gap reduced between LEP and FEP students, but the LEP students outscored their fluent English-speaking classmates with a total mean score of 102.6 to 96.4.

Figure 1 on the previous page shows the difference in scores for LEP and FEP students on the four measures assessed by the test. LEP students outscored their FEP classmates in communications

39.8 to 38.8, in Problem-Solving, 20.8 to 19.8, in Social-Emotional Development, 26.8 to 23.8, and in Physical Development, 15.2 to 14.6.

In addition, Figure 2 indicates that after participation in the program, the Language Assessment Survey (LAS) Level mean score for both groups was the same, 3.8.

Was there at least one year of growth in the students' primary language development skills in Spanish during the 1995-96 school year?

The Woodcock-Muñoz Language Survey produced Normal Curve Equivalent (NCE) scores for each student in Broad Spanish Abilities, Oral Lan-

Spring 1996—Language Assessment Survey (LAS)

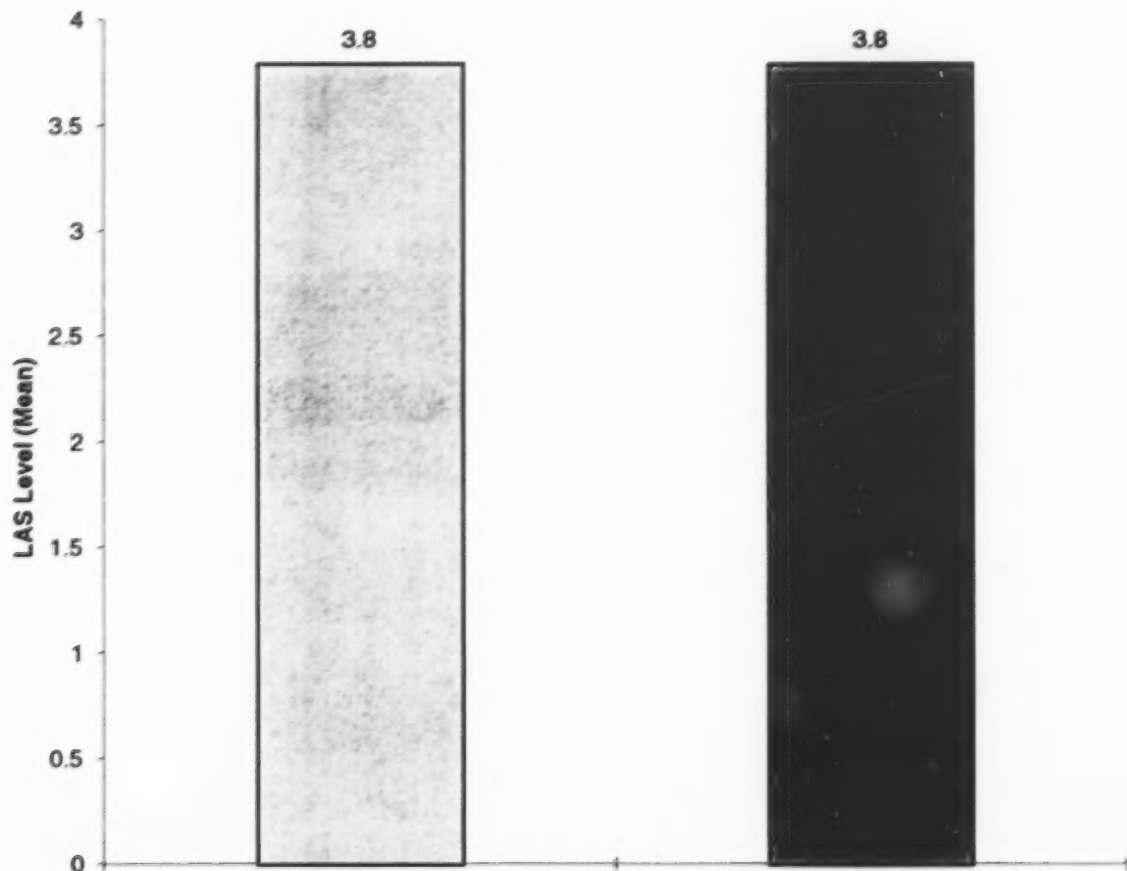


Figure 2: Results of spring 1996 Language Assessment Survey for program participants.

guage Development, and Reading/Writing Ability. Table 1 indicates that the mean NCE score on the pretest of the Broad Spanish Abilities measure was 27; the mean NCE score on the posttest was 37. This produced a mean NCE change score of 10. Although the mean NCE score did not indicate grade level achievement for the group, the change score did indicate substantial progress. A *t*-test was conducted on the NCE scores to determine whether the increase was statistically significant.

Table 1 includes results from the Microsoft Excel analysis of the pretest and posttest scores. The scores produced a *t* Stat of 2.407 ($p=0.017$). The *t* Critical score was 1.795. The *t*-test supported the conclusion that the increase in student achievement on Broad Spanish Abilities was statistically significant at the 0.01 level of significance.

Table 2 indicates that the mean NCE score on the pretest of the Oral Language Abilities measure was 46; the mean NCE score on the posttest was 57. This produced an NCE Change Score of 11. The mean NCE score of 57 on the posttest indicated that students performed at or above grade level on that measure. A *t*-test was conducted on these NCE scores to determine whether the increase in student achievement was statistically significant.

The Microsoft Excel analysis of the data produced a *t* Stat of 2.807 ($p=0.009$). The *t* Critical score was

Table 1: Woodcock-Muñoz Language Survey (Spanish)—LS-S Broad Spanish Abilities

Participant's	Broad Spanish Abilities	
	Posttest Spring 1996	Pretest Fall 1995
1	34	29
2	33	29
3	31	7
4	39	22
5	31	1
6	37	40
7	33	40
8	56	44
9	44	32
10	39	33
11	37	1
12	34	47

t-Test: Paired Two Sample for Means

	Variable 1	Variable 2
Mean	37	27
Observations	12	12
Change Score	10	
<i>t</i> Stat	2.407	
<i>P</i> ($T \leq t$) one-tail	0.017	
<i>t</i> Critical one-tail	1.795	

Table 2: Woodcock-Muñoz Language Survey (Spanish)—LS-S Oral Language Ability

Participants	Oral Language Ability	
	Posttest Spring 1996	Pretest Fall 1995
1	50	34
2	50	43
3	59	36
4	87	68
5	44	15
6	60	44
7	44	48
8	81	59
9	57	47
10	44	31
11	44	37
12	66	89

t-Test: Paired Two Sample for Means

	Variable 1	Variable 2
Mean	57	46
Observations	12	12
Change Score	11	
<i>t</i> Stat	2.807	
<i>P</i> ($T \leq t$) one-tail	0.009	
<i>t</i> Critical one-tail	1.796	

1.796. The results of this test supported the conclusion that the increase in student achievement on the Oral Language Abilities subtest was statistically significant at the 0.01 level of significance.

Was there at least one year of growth in the students' pre-literacy development skills in Spanish during the 1995-96 school year?

Results from the Reading/Writing Abilities subtest indicate progress that exceeded one year of growth, but the evidence was not statistically significant on this subtest. Table 3 indicates that the mean NCE pretest score was 25; the mean NCE posttest score was 29. This produced an NCE Change Score of 4 on the Reading/Writing Abilities subtest. The Microsoft Excel analysis produced a *t* Stat of 0.966 ($p=0.177$). The *t* Critical score was 1.795.

It should be noted that a positive Change Score indicates that student achievement exceeded expected progress during the year. Also, student portfolios exhibited substantial progress in their work. However, results on this subtest indicate that student achievement on the post test remained below grade level, and progress was not considered statistically significant.

Table 3: Woodcock-Muñoz Language Survey (Spanish)--LS-S Reading/Writing Ability

Participants	Reading/Writing Ability	
	Posttest Spring 1996	Pretest Fall 1995
1	31	29
2	26	26
3	22	1
4	19	7
5	25	7
6	29	40
7	19	39
8	44	40
9	39	27
10	39	37
11	36	1
12	23	43

t-Test: Paired Two Sample for Means

	Variable 1	Variable 2
Mean	29	25
Observations	12	12
Change Score	4	
t Stat	0.966	
P(T<=t) one-tail	0.177	
t Critical one-tail	1.796	

Was there substantial growth in the students' affective development levels during the 1995-96 school year?

Table 4 presents data collected by the teacher on the Emergent Reader Inventory. That instrument was published by Creative Teaching Press for use with Pre-Kindergarten students to assess the affective, pre-reading, pre-writing, and pre-literacy development of the students.

According to the results of that assessment, all of the students demonstrated that they enjoyed sharing their experiences with books, and that they were secure with their behavior. Eleven of the twelve demonstrated that they were secure with their ability to write and draw, and that they enjoyed writing and drawing. One of the students showed that he was beginning to enjoy writing and drawing.

In addition, seven of the twelve students demonstrated that they were secure in the majority of the criteria related to pre-reading and pre-writing skills. Five of the students exhibited beginning levels of behavior related to pre-reading and pre-writing. Some of the criteria were recorded as not observed by the teacher.

Eleven of the twelve students were able to write their first names. Once could write her first and middle

name. Another could write her first name and the word "Hola." One student was able to write the first letter of her first name.

At the beginning of the year, none of the students could write their names, and one of the students did not know how to hold a pencil or crayon. Examples of student work in their portfolios exhibited marked improvement in the amount of work and level of detail produced by the students. Students were able to demonstrate increased levels of oral language ability in describing their drawings and re-telling stories. Student drawings improved from simple lines and shapes to figures of people, animals, and other objects, with such details as hands, fingers, legs, houses with windows and doors, and similar details.

Based on teacher observation and the results of the Pre-Kindergarten assessment, documentation supported substantial affective development for the program participants.

How were parents involved in the Enhancement Program, and what were their perceptions of the program?

Family involvement in the instructional process was a key element of the Compartiendo Cultura/ Sharing Cultures Enhancement program. The program used resources provided through the Home Instruction Program for Pre-school Youngsters (HIPPY), which was developed by the National Council of Jewish Women Research Institute for Innovation in Education at the Hebrew University of Jerusalem, Israel in 1969. The HIPPY program provided comprehensive home based activities that helped the families teach their pre-school children. The program was especially useful for parents with limited educational experience. The HIPPY program provided specific learning activities and materials to help families provide meaningful educational enrichment for their pre-school children. A HIPPY parent trainer visited each family on a weekly basis to coordinate the activities.

Results from the parental attitudes survey are presented in Figure 3. Ten of the eleven respondents indicated that they attended HIPPY training at Herod Elementary School. One parent did not respond to that item. Nine of the parents indicated that they helped their child with lessons at home every day. One parent helped 3-5 times per week. One parent did not respond. All of the parents were trained to use Spanish language materials, and all used Spanish

Table 4: Results of Emergent Reader Inventory for Program Participants with Teacher Comments

Emergent Reader Inventory	
(KEY: N=Not observed, B=Beginning, S=Secure)	
Emergent Reader Behaviors	Program Participant
	1 2 3 4 5 6 7 8 9 10 11 12
Uses reading-like behavior	s s s s b b b b s b s
Notifies/reads environmental print	b b b b b n b b b n s
Recognizes some high-frequency words	n b n b n n n n n n b
Retells favorite stories	s s s s s s s s s s s
Memorizes rhymes and poems	s s s s s b b s s s s
Knows what a letter is	s s s s s b b s s s b s
Knows what a word is	s s s s s b b s s s b s
Knows some letters and sounds	b b b b b n n b b n b
Knows that letter symbols form words	s s b s s b b s b s b s
Knows that text goes L to R	s s s s s s s s s s s s
Knows where to start reading the text	b b b s b b b b b b s
Is establishing 1-to-1 correspondence	b b s s b b b b b b s
Enjoys writing/drawing	s s s s s s s b s s s s
Enjoys shared experiences with books	s s s s s s s s s s s s
Program Participants	Teacher Comments
1	She pretends to read for teachers. Drawings have become more detailed and sophisticated. She has experimented in writing some letters and some numbers. She is able to write her first name.
2	She would often go to the library center and pretend to read the books that we had read together in class. She is able to write her first name.
3	She pretended to read for teachers. Drawings began at the scribble and circle stage and now show a great deal of form and detail. She also experiments in writing some letters and numbers. She is able to write her first name.
4	She pretended to read to teachers. Drawings have become much more detailed and sophisticated. She has experimented in making some letters and numbers in her journal. She is able to write her first name. She also writes the word "Hola" in her journal.
5	She loves working in the writing center. She is able to copy words and letters from the word bank. She is able to write her first and middle name.
6	In his journal, he has experimented with writing different letters of the alphabet. He concentrated on letters that he found in his name, his brother's name and names of his friends in class. He is able to write his first name.
7	In the beginning of the year, he did not know how to hold a pencil or a crayon. He now holds writing utensils correctly and his drawings have become more sophisticated with quite a bit of detail. He also experiments with writing different letters of the alphabet and various numbers. He is able to write his first name.
8	He has a wonderful oral vocabulary for his age. He was quite shy because he has a cleft palate which affected his speech and ability to be understood. He gained self-confidence and really began to feel comfortable speaking in front of others and with his peers. He is able to write his first name.
9	Drawings became more sophisticated and with more details as the year progressed. She also experimented in forming letters and numbers and she would copy words from the word bank. She is able to write her first name.
10	She is quite verbal and she loves to talk about stories and her family. She willingly converses with most everyone. She also has experimented with writing some letters and numbers. She is able to write her first name.
11	Drawings have developed from scribbles and just circles to drawings with form and details. She is able to write the first letter of her name.
12	She pretends to read for teachers. In her journal, she experiments with writing. She is able to form various letters of the alphabet, several numbers, and she copies words from the word bank. She is able to write her first name.

language materials to help their children at home. Results of the survey indicated that parents were pleased with the teaching methods used at school, and they felt that their children benefited from the program.

All of the parents expressed positive attitudes about the program. They felt that the role-playing in the training sessions helped them teach their children

better. They thought of themselves as a teacher of their children, and they felt that the home activities helped their children learn. The program helped increase the parents' feeling of belonging at the school, and resulted in more participation in school activities. The parents indicated that their children enjoyed the HIPPY activities. Parents increased the amount of time spent with their children, and they felt

Houston Independent School District
Title VII Project *Compartiendo Culturas*: Pre-School Enhancement
Parent Survey, Spring 1996

The purpose of this survey is to determine your opinions and feelings concerning the bilingual, pre-school program at Herod Elementary School. The Home Instruction Program for Preschool Youngsters (HIPPY) is a part of this program. Completing this survey is voluntary; however, your opinions and experiences are very important to us. This survey is anonymous; no names will be recorded. There are no right or wrong answers on this survey. Just answer the questions honestly about your opinions and feelings.

INSTRUCTIONS. Place an "X" in the box that indicates your response.

1. Did you attend a training program at Herod Elementary School to help you work with your pre-school child at home? Yes (10) No (0)
2. How often do you help your child with lessons at home?
Every day (0) 1-2 times per week (0) Never, or almost never (0)
3-5 times per week (1) 1-2 times per month (0)

	Yes, very much	Yes, somewhat	No, not much	No, not at all
3. Did the role-playing part of the training sessions help you teach your child better?	11	0	0	0
4. Do you think of yourself as a teacher of your child?	11	0	0	0
5. Do you feel that the home activities helped your child learn?	11	0	0	0
6. Has this program increased your feeling of belonging at the school?	11	0	0	0
7. As a result of this program, do you participate in more activities at your child's school?	11	0	0	0
8. Did this program increase the amount of time you spend with your child?	11	0	0	0
9. Does your child enjoy the HIPPY activities?	11	0	0	0
10. Do you feel you have come to know your child better as a result of this program?	10	1	0	0
11. Are you pleased with the teaching methods used at school?	11	0	0	0
12. Do you feel that your child has benefitted from this program at school?	11	0	0	0

	English	Spanish	Both
13. When you were trained at school, in what language were your training materials written?		11	
14. The materials you use to teach your child at home are written in which language?		11	
15. What language do you use when helping your child with lessons at home?		11	

Figure 3: Results of parent attitudes survey conducted in spring 1996.

they came to know their children better as a result of the program.

The HIPPY USA schedule of parent meetings is presented in Table 5. Four parent meetings were conducted during the spring 1996 semester. Parent attendance ranged from 13 to 19 parents at the meetings. Topics were chosen to be of special interest to the parents, with speakers and resources provided by governmental agencies, health organizations, community agencies, and others.

What staff development activities were provided for program staff, and how did the training help the staff achieve their instructional goals?

A number of staff development activities were provided for dual-language program staff. The University of St. Thomas offered a dual-language program conference that Herod staff attended. The Second Annual Dual-Language Conference in Austin, Texas, also provided staff development for Herod staff. Staff development opportunities were also available through Harris County Department of Education and Region IV Education Service Center. In addition, there was a program to develop bilingual education teachers offered by the Houston Community College System and Houston Baptist University.

Table 6 presents survey responses by teachers and staff who indicated positive effects for the staff development component of the project.

What were the recommendations of program staff and parents for improving the quality of the program implementation?

Program staff and parents were enthusiastic about the effectiveness and benefits of the program. They offered a number of suggestions and comments to improve the quality of the program. The following program additions or changes were recommended to improve program effectiveness:

- Provide additional staff development for non-program teachers. Topics may include: What is dual language? What does it mean? Benefits of dual language. Comparison with other methods of bilingual education.
- Start the program at the beginning of the school year in 1996-97. Funding approval dates delayed the start of the program in 1995-96.
- Provide additional district support and promote districtwide implementation for this model Pre-Kindergarten program.
- Provide districtwide support for schools to implement the HIPPY parental involvement program. Pre-school students need more from their parents, and this program teaches parents how to help their pre-school children.

Summary, Conclusions and Recommendations

The program evaluation focused on twelve, four- and five-year-old, Spanish-speaking students who participated in the Pre-Kindergarten dual-language program at Herod Elementary School. Three male and nine female students participated in the program.

The mean NCE score on the pretest of the Broad Spanish Abilities measure was 27; the mean NCE score on the posttest was 37. This produced a mean NCE change score of 10. A *t*-test supported the conclusion that student achievement on Broad Spanish Abilities was statistically significant at the .05 level of significance.

An examination of individual scores showed that eight of the twelve students scored at or above grade level in Oral Language Ability with NCE scores ranging from a high of 87 to a low of 50. The increase in student achievement on the Oral Language Abilities subtest was statistically significant at the 0.01 level of significance.

Results from the Reading/Writing Abilities subtest indicated progress, but the evidence was not statistically significant on this subtest. The mean NCE

Table 5: Schedule of parent meetings

Date	Topic	Sponsor	No. Parents Attending
01-16-96	Medicaid and EPSDT	The Southwest Community Health Clinic. Harris County Hospital District	19
02-20-96	ESL, VT, GED	SER-Jobs for Progress. Southwest Family Learning Center	16
03-26-96	Systematic Training for Effective Parenting	Escape Family Resource Center	13
05-07-96	Parks and Recreation	City of Houston	14

Table 6: Results of teacher and staff survey conducted in spring, 1996

Compartiendo Culturas /Sharing Cultures Enhancement Grant: 1995-96 Herod Elementary School: Teacher and Staff Survey Results				
Item	Strongly Disagree	Disagree	Agree	Strongly Agree
1. After participating in <i>Compartiendo Culturas</i> /Sharing Cultures program, most of the students showed substantial growth in their primary language and pre-literacy development skills.				5
2. After participating in the program, most of the students showed substantial growth in their affective development.				5
3. Staff development and training activities provided for program staff were helpful in achieving instructional goals. (Dual Language Conference at the University of St. Thomas, Second Annual Dual Language Conference in Austin).			1	4
4. The program offered opportunities for professional growth for the program teacher and staff. (Send to school to become bilingual teacher, HCC to HBU, plus experience).				5
5. The program was successful in involving parents in the education of their preschool children.				5
1. What were the greatest benefits of the program?				
• An additional aide, which provided more one on one attention.				
• The parental component.				
• LEP and English Speaking students achieved the same level of vocabulary and social skills. The gap was closed between LEP and English speaking students.				
• The dual language approach, plus materials and equipment, especially computers.				
• This program prepares children for a better academic education, and provides for parent involvement with their children.				
• Parents becoming involved as the primary educators of their children.				
2. How would you compare this program to other preschool dual-language programs?				
• Dual language is better than bilingual because students start English earlier in dual language. Plus, teacher aides provide more attention to students to complete the program.				
• This is better than bilingual education because the children are learning two languages at the same time.				
• Far more parental involvement and increased competency of staff due to a strong staff development component.				
3. What implementation strategies were most successful?				
• Having one aide who concentrated on Spanish-speaking students and one aide who concentrated on English. (2 responses)				
• Using journals to develop language, vocabulary, and pre-literacy skills.				
• Using the whole language approach and big books.				
• Lots of technology resources were very helpful.				
• The parent training component and parental involvement was very successful				
• The supervisor, the teacher, and the aides spent time planning and preparing for instruction. (2 responses)				
4. What problems were encountered with program implementation? How were they overcome?				
• School started August 20, funding started October 1. New staff had to be quickly involved in the instructional process				
• Parents work and have many excuses not to be involved with their children. The parent trainer invited parents, called on the phone, visited homes, and provided incentives for parents to attend school activities.				
• The children need more attention from parents because when the parents are involved in the school, their children can get what they need to achieve.				
5. What changes would you make to improve the program?				
• Start the program at the beginning of the year.				
• Add summer school to maintain continuity.				
• Provide additional staff development for non-program teachers. Topics may include: What is dual language? What does it mean? Benefits of dual language. Comparison with other methods of bilingual education.				
• More administrative for this excellent dual language program, and especially the HIPPPY parental involvement program. Students need more from their parents, and this program helps educate parents.				
• Additional support from HISD for the two-language program.				

pretest score was 25; the mean NCE posttest score was 29; and the NCE Change Score was 5. Results on this subtest indicate that student achievement on the post test was not considered statistically significant.

All of the students demonstrated that they enjoyed sharing their experiences with books, and that they were secure with their behavior. Eleven of the twelve demonstrated that they were secure with their ability to write and draw, and that they enjoyed writing and drawing. One of the students showed that he was beginning to enjoy writing and drawing.

Impressive results were recorded on the Fall 1996 Kindergarten Developmental Survey and Language Assessment Survey (LAS). Not only was the readiness for Kindergarten gap reduced between LEP and FEP students, but the LEP students outscored their fluent English-speaking classmates by total mean scores of 102.6 to 96.4 on the Kindergarten Developmental Survey. In addition, the Language Assessment Survey (LAS) Level mean score for both groups was the same at 3.8.

Ten of eleven parents indicated that they attended HIPPY training at Herod Elementary School. Nine parents indicated that they helped their child with lessons at home every day. All of the parents were trained to use Spanish language materials, and all used Spanish language materials to help their children at home. Results of the survey indicated that parents were pleased with the teaching methods used at school, and they felt that their children benefited from the program. All of the parents expressed positive attitudes about the dual-language program and their HIPPY training.

A number of staff development activities were provided for dual-language program staff through the following institutions: The University of St. Thomas, the Second Annual Dual-Language Conference in Austin, Texas, Harris County Department of Education, Region IV Education Service Center, Houston Community College System, and Houston Baptist University. Survey responses by teachers and staff indicated positive effects for the staff development component of the project.

The following program additions or changes were recommended to improve program effectiveness:

- Provide additional staff development for non-program teachers. Topics may include: What is dual language? What does it mean? Benefits of dual language. Comparison with other methods of bilingual education.

- Start the program at the beginning of the school year in 1996-97. Funding approval dates delayed the start of the program in 1995-96.
- Provide additional district support and promote districtwide implementation for this model dual-language Pre-Kindergarten program.
- Provide districtwide support for schools to implement the HIPPY parental involvement program. Pre-school students need more from their parents, and this program teaches parents how to help their pre-school children.

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